

Certificate of Analysis

(Page 1 of 2)

Client: SPRAGUE ENERGY

Report No: 25596

Product: #6 Fuel Oil

SGS File No: 831401

LIMS No: 25596 - 67498

Lab No: P111501965

Sample Description: Shoretank 11, Composite UML sample. After discharge Barge B- 230. Sampled at Sprague Quincy, MA. Sampled *P111501965*

by SGS.

Tested On: 6/28/2005

<u>METHOD</u>	TEST	RESULT	
ASTM D 4052	API Gravity @ 60F, Calc	14.1	٥
ASTM D 4294	Total sulfur content	0.452	Wt-%
ASTM D 93b	Flashpoint, PMCC	226	°F
ASTM D 97	Pour Point	70	°F
ASTM D 97	Pour Point	21	°C
ASTM D 445	Kinematic Viscosity, 122°F		
	Kinematic Viscosity, 122¦F	399.4	cst
	Kinematic Viscosity, 122¦F	188.50	SFS
ASTM D 1796	Water and Sediment by Centrifuge	0.150	% vol
ASTM D 482	Ash	0.0720	Wt- %
ASTM D 5762	Nitrogen by Chemiluminescence	0.24	Wt-%
ASTM D 473	Sediment by extraction	0.07	Wt-%
ASTM D 189	Conradson Carbon Residue	6.4	%
IP 143	Asphaltenes	1.6	Wt-%
ASTM D 95	Water by Distillation	0.050	Vol-%
D 5863 B	Sodium, MDL=1	8	ppm
D 5863 B	Vanadium, MDL=1	10	ppm
ASTM D 240	Gross Heat of Combustion	18661	Btu/lb
ASTM D 240	Gross Heat of Combustion	151023	Btu/gal

Supervisor: Date: 06/28/2005

Kenneth Decie

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87

Certificate of Analysis

(Page 2 of 2)

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Precision parameters apply in the determination of above test results. Also refer to ASTM D 3244-97/02, IP 367/96 and appendix E of IP standard methods for analysis and testing for utilization of test data to determine conformance with specifications.

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